

Amendments to the Claims

Please cancel Claims 4-6 and Claim 30. Please amend Claims 1, 7, 11 and 15. The Claim Listing below will replace all prior versions of the claims in the application:

Claim Listing

- Claim 1. (Currently amended) An isolated nucleic acid molecule encoding a polypeptide having ~~improved~~ thermostable cellulase activity and encoded by the amino acids of at least about 85% identity compared to SEQ ID NO: 2, wherein said nucleic acid is truncated such that one or more of the amino acid residues ~~corresponding to from~~ position one to ~~about~~ position 40 in the ~~corresponding~~ SEQ ID NO: 2 are deleted in the polypeptide encoded by said nucleic acid molecule, wherein said polypeptide is more soluble and has a specific cellulase activity that is at least two times greater than the specific activity of the polypeptide having the full-length sequence of SEQ ID NO: 2 using carboxymethyl cellulose as substrate.
- Claim 2. (Previously presented) A nucleic acid construct comprising the nucleic acid molecule of Claim 1 operably linked to a regulatory sequence.
- Claim 3. (Previously presented) A host cell comprising the nucleic acid construct of Claim 2.
- Claims 4 - 6 (Cancelled)
- Claim 7. (Currently amended) An isolated nucleic acid molecule ~~encoding a polypeptide having improved thermostable cellulase activity compared to its full-length native counterpart, said nucleic acid molecule~~ having a nucleotide sequence selected from the group consisting of: nucleotides 52-783 of SEQ ID NO: 3, nucleotides 55-783 of SEQ ID NO: 3, nucleotides 58-783 of SEQ ID NO: 3, nucleotides 61-783 of SEQ ID NO: 3, nucleotides 64-783 of SEQ ID NO: 3, nucleotides 67-783

of SEQ ID NO: 3, nucleotides 70-783 of SEQ ID NO: 3, nucleotides 73-783 of SEQ ID NO: 3, nucleotides 76-783 of SEQ ID NO: 3, nucleotides 79-783 of SEQ ID NO: 3 and nucleotides 82-783 of SEQ ID NO: 3.

- Claim 8. (Previously presented) A nucleic acid construct comprising the nucleic acid of Claim 7 operably linked to a regulatory sequence.
- Claim 9. (Previously presented) A host cell comprising the nucleic acid construct of Claim 8.
- Claim 10. (Previously presented) The isolated nucleic acid molecule of Claim 7 wherein the nucleic acid has the sequence of nucleotides 52-783 of SEQ ID NO: 3.
- Claim 11. (Currently amended) An isolated nucleic acid molecule ~~encoding a polypeptide having improved thermostable cellulase activity compared to its native full-length counterpart, said nucleic acid~~ having a nucleotide sequence selected from the group consisting of: nucleotides 85-783 SEQ ID NO: 3, nucleotides 88-783 of SEQ ID NO: 3, nucleotides 91-783 of SEQ ID NO: 3, nucleotides 94-783 of SEQ ID NO: 3, nucleotides 97-783 of SEQ ID NO: 3, nucleotides 100-783 of SEQ ID NO: 3, nucleotides 103-783 of SEQ ID NO: 3, nucleotides 106-783 of SEQ ID NO: 3, nucleotides 109-783 of SEQ ID NO: 3; and nucleotides 112-783 of SEQ ID NO: 3.
- Claim 12. (Previously presented) A nucleic acid construct comprising the nucleic acid molecule of Claim 11 operably linked to a regulatory sequence.
- Claim 13. (Previously presented) A host cell comprising the nucleic acid construct of Claim 12.

- Claim 14. (Previously presented) The isolated nucleic acid molecule of Claim 11 wherein the nucleic acid sequence comprises the sequence of nucleotides 112-783 of SEQ ID NO: 3.
- Claim 15. (Currently amended) An isolated nucleic acid molecule encoding a fusion protein comprising a thermostable cellulase encoded by the amino acids of [improved thermostable cellulase activity and at least about 85% identity compared to] SEQ ID NO: 2 and a fusion partner wherein, said thermostable cellulase is a variant of a glycosyl hydrolase of family 12, and ~~wherein said nucleic acid molecule is~~ truncated such that one or more of the amino acid residues ~~corresponding to~~ in position one to ~~about~~ position 40 in SEQ ID NO: 2 are deleted in the fusion protein encoded by said nucleic acid molecule, wherein said polypeptide is more soluble and has a specific cellulase activity that is at least two times greater than the specific activity of the polypeptide having the full-length sequence of SEQ ID NO: 2 using carboxymethyl cellulose as its substrate.
- Claim 16. (Cancelled)
- Claim 17. (Previously presented) A nucleic acid construct comprising the nucleic acid molecule of Claim 15 operably linked to a regulatory sequence.
- Claim 18. (Previously presented) A host cell comprising the nucleic acid construct of Claim 17.
- Claim 19. (Previously presented) A method for producing a thermostable cellulase comprising maintaining the host cell of Claim 18 under conditions suitable for expression of said nucleic acid construct, whereby said thermostable cellulase is produced.

- Claim 20. (Previously presented) A method for producing a thermostable cellulase comprising maintaining the host cell of Claim 19 under conditions suitable for expression of said nucleic acid construct, whereby said thermostable cellulase is produced.
- Claim 21. (Original) A method for producing a thermostable cellulase comprising maintaining the host cell of Claim 9 under conditions suitable for expression of said construct, whereby said thermostable cellulase is produced.
- Claim 22. (Original) The method of Claim 21 further comprising recovering said thermostable cellulase.

Claims 23 - 30 (Cancelled)